

### **REMARKS**

In accordance with the foregoing, claims 1, 3, 4, 7, 9, 12, 14, and 15 are amended. No new matter is believed to be added. Claim 2 is cancelled without prejudice. Claims 1 and 3-15 are pending and under consideration.

#### **CLAIM REJECTION UNDER 35 U.S.C. §103**

Claims 1-6, and 12 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,859,268 to Chou et al (hereinafter "Chou"), in view of the article "*PMD-induced BER penalties in optically-amplified IM/DD lightwave systems*" by Morkel et al. ("Morkel").

Independent claim 1 is amended herewith to further include "storing an initial value of said degree of polarization of said optical signal," and to specify that "determining a change amount in an optical signal to noise ratio of said optical signal according to a change amount in a measured value of said degree of polarization relative to said stored initial value." The claim amendments are fully supported by the originally filed specification, for example, see FIG. 5 and page 10, last paragraph continuing on page 11 and the following paragraph, corresponding to paragraphs [0063] and [0064] in the publication of this application USPAP No. 2004/0067057.

The outstanding Office Action alleges that Chou discloses storing an initial value of said degree of polarization of the optical signal in col. 7 line 50 to col. 8 line 5 (see Page 3 lines 9-12). However, the indicated portion of Chou discloses **calculating** degrees of polarization using a computer by determining locations of state of polarization (SOP) vectors on Poincare sphere, which is **not storing** an initial value of said degree of polarization. Further the Office Action alleges that col. 13 lines 57-67 of Chou is a relevant portion disclosing determining a change amount in the measured value of the degree of polarization. The calculations and estimations described in the indicated portion of Chou do not teach or suggest the feature recited in amended claim 1 that the Office Action alleges it does.

Applicants consider that the cited references alone or in combination do not render obvious the features of amended claim 1. Therefore, claim 1 and claim 3 depending from claim 1 are patentable.

Independent claims 4, 12 and 15 are amended herewith in a manner similar to amended claim 1 and the amendments are supported at least by the above-specified portions of the specification.

Independent claim 4 is amended herewith to specify that the optical SNR calculation section "stores an initial value of said degree of polarization of said optical signal, and determines a change amount in an optical signal to noise ratio of said optical signal according to a change amount in a measured value of the degree of polarization obtained in said degree of polarization measuring section relative to said stored initial value." In view of the amendments of independent claim 4, Applicant believes that independent claim 4 and claims 5-11, 13 and 14 depending directly or indirectly from claim 4 patentably distinguish over the cited prior art.

Amended independent claim 12 patentably distinguish over the cited prior art at least by reciting "an optical signal to noise ratio calculation section which determines a change amount in an optical signal to noise ratio of said optical signal, by using the measured value of the degree of polarization obtained by the degree of polarization measuring device in said automatic polarization mode dispersion compensation apparatus."

#### CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

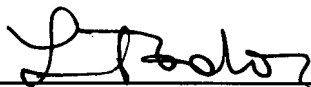
If there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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